## NOVEMBER, 1872.

The monthly evening meeting of the Society was held on Tuesday, the 12th November, M. Allport, Esq., V.P., in the chair.

The Secretary, Dr. Agnew, submitted the following returns for the past month :—

1. Visitors to Museum, 1,421.
2. Ditto to Gardens, 2,349.
3. Seeds received at Gardens.
4. Time of leafing, flowering, &c., of a few standard plants in Botanic Gardens.
5. Books and periodicals received.
6. Presentations to Museum.

*Meteorological Returns :—*

1. Hobart Town, from F. Abbott, Esq.—Table, &c., for October.
2. Swansea, from Dr. Story—Ditto, for September.
3. Westbury, from F. Belstead, Esq.—Ditto, ditto.
4. Port Arthur, from A. H. Boyd, Esq.—Ditto, ditto.
5. Melbourne, from R. L. J. Ellery, Esq.—Ditto, ditto (printed).
6. Sydney, from H. C. Russell, Esq., B.A.—Ditto, August, (printed).
7. Queensland, from E. McDonnell, Esq.—Printed tables, for various stations, from December, 1871, to June, 1872.

The presentations to the Museum were as follow :—

1. From Jas. Scott, Esq., M.H.A.—16 Stone Implements of Aborigines of Tasmania found at Mount Morriston.
2. From Captain Bailey.—An Albino Pheasant from New Zealand, prepared and mounted.
3. From Mr. J. Chisholm—*New South Wales Government Gazette*, 1833, vol. 2, bound.
4. From Mr. Bromfield—A Beaver Rat, *(Hydromys chrysogatser.)*
5. From W. V. Legge, Esq., R.A., Ceylon—Two nests of the Weaver Bird.
6. From R. Gatenby, Esq.—Two Native Tigers, *(Thylacinus cynocephalus.)*
7. From Mr. Blythe, Honeywood—Specimen of *Antechinus swainsonii.*
8. From Mr. C. Sprent, Table Cape.—Twelve Mineralogical Specimens from vicinity of Mount Bischoff, with a note.
9. From Mr. T. C. Just, Launceston.—A small bar of Malleable Iron manufactured from Tasmanian ore.

The following note from Mr. Just accompanied this presentation :—

"By post to-day I send you a small bar of malleable iron, manufactured from earthen brown hematite and magnetic ore, from the ground of the Tasmanian Charcoal Iron Company at Anderson's Creek. I may state that this iron has never been smelted, but merely burnt from the ore in a forge, and the particles welded together in the form in which you now see it. It was, in fact, treated on the Catalan forge principle which the company is about to adopt for the production of malleable iron from the richer class of ores.

"I may mention that the company's ground is not at Ilfracombe, as erroneously stated by some correspondents, but about three miles to the westward, and about the same distance south-east of York Town.

"Please place the specimen in the Museum, and oblige."

10. From Mr. H. Pearce.—A Tippet Grebe *(Podiceps australis)* shot at New Town.
11. From Mr. J. M. Clarke.—A specimen of *Gordius aquaticus*, from River Plenty.
12. From Mrs. Stokell.—A piece of South Sea Island Tapa cloth.
13. From T. Stephens, Esq.—A sample of Bituminous Shale from Piper's River.

Dr. Agnew produced a fern which had been sent to the Museum for the purpose of determining the nature of the small scales which were thickly distributed all over it, especially on the stems. He had placed two of these apparent scales under microscopes where the Fellows could perceive they were in fact small animals of the *Coccus* tribe. The following extract which he would read from "Carpenter's Zoology," Vol. 2, p. 191, clearly explained their nature. "The bark of many of our trees often appears warty, by reason of a great number of small oval or rounded bodies, like a shield or scale, which are fixed to them, and in which no external traces of the insect are to be observed. These, however, are larvæ belonging to the tribe (*Coccus*) in question. Some of them are females ; others young males, which are similar to them in form. At a subsequent period they all undergo singular transformations. The males fix themselves to the plant, and pass into the pupa state, in which they remain completely at rest, and at last emerge as winged insects, coming out of their cocoons backwards, with the wings extended flatly over their heads. The females on the other hand remain attached to the plant, and increase in size, in consequence of the development of a large number of eggs in their interior, but they undergo scarcely any other change. The eggs are deposited between the lower side of the body, and the surface to which it is attached; the latter having been previously covered with a sort of cottony secretion. The parent then dies, and her body dries up and becomes a solid cocoon, which covers the eggs. Here the eggs are hatched ; and young larvæ, which are at first active in their habits, quit their envelope, and ascend to the extremities of the branches ; there they affix themselves by their sucking beak, gradually increase in size, and lose their activity. In this condition they pass the whole winter ; and it is not until the succeeding spring that the characters of the sexes, which are henceforth to be so distinct, begin to show themselves."

Several reports from farmers who had planted sugar-beet seed, furnished by the Society, were read, the general experience being highly in favour of the root as being very productive and excellent for fattening stock of all kinds.

Mr. Barnard read his promised paper describing, in detail, from the latest authorities, the best method of extracting the sugar from the beet. The cost of machinery capable of using up the produce of five hundred acres was given and its mode of action explained.

Discussion ensued, when the general opinion of the members seemed to be that it would be imprudent at present to advise the establishment of a manufactory. It was thought that the culture of beet should in the first place be much more extensively introduced, so that Tasmanian farmers should become familiar with its growth.

It was also remarked that much practical experience would be gained from the results of the large beet-sugar manufactory now in operation near Geelong. Mr. Justin Browne mentioned that Mr. S. P. H. Wright, of Glenorchy, informed him that machines of about the value of £150 were made for the purpose of manufacturing small quantities of sugar, and if such machinery could be purchased, and made use of by private individuals, it would be of great interest to have some definite information as to their action.

Mr. Stephens called attention to the specimen of bituminous shale from Piper's River, and described its geological position. It was chiefly interesting as affording a new link in the carboniferous series of Tasmania, and its discovery might eventually lead to important results.

Mr. Stephens also remarked that it was desirable there should be on the records of the Society some account of the recent landslip near

O'Brien's Bridge, and mentioned some of the conclusions arrived at during a recent examination of the interesting phenomena connected therewith. The subject would afford good material for a future paper.

Discussion followed in which various opinions were expressed upon the original cause of the landslip.

A letter from Colonel Crawford (of Castra) was read in reference to two parcels of seed from India, sent for planting in the Society's Gardens. One, the "Raggee" *(Eleusina coracana)* was extremely productive, and a staple article of food for the poorer classes in India, in the hilly and wilder districts, and Colonel Crawford thinks it might be very valuable for forage in the form of green stuff or hay.

The other "Coltee" (*Dolichos uniflora*) was a sort of bean which furnishes the ordinary grain ration of horses in Southern India. It does very well in Victoria, where it is specially valued for its yield of green fodder.

A letter was read from Mr. Davis, Ark Inn, above New Norfolk, giving a description of some very large fish, thirty or forty in number, which had recently been seen on several occasions, and on each occasion higher up the stream. The general belief was that they were salmon on their way to spawn.

The CHAIRMAN read the following extract from a letter written by a lady in New Zealand :—

"Sometimes the surf rolling upon the beach after a storm is magnificent. About ten days ago two gentlemen were riding along the beach, when they came upon a huge monster cuttle-fish, which was rolling about in the surf quite dead, having been washed up by the storm. It was so large they could not possibly drag it up on the beach. They said it must have weighed six hundred weight at least. It had eight feelers or arms, one of which was fourteen feet, the others eleven feet long. They could not turn it over to see its eyes, but they must have been terrific. I think it must have been carried out to sea again, for only some small portions of its arms are to be seen now (on the beach)."

[The beach referred to is on the east coast of the North Island, about 80 or 100 miles north of Cape Palliser.]

Dr. AGNEW had been informed by one of the whaling captains out of this port that these creatures are the principal food of the sperm whale, which, when severely wounded, frequently throws up large quantities of them. The whale appears to eat little more than the body of the cuttle-fish, the greater portion of the arms being left untouched. These float on the surface of the water, and when seen indicate that sperm whales are in the vicinity. Cuttle-fish (inclusive of the arms) twenty and thirty feet long are frequently seen, but they are reported to have been observed at least double this size, especially in the Japan Seas, which are therefore favourite "feeding grounds" of the whale. Dr. Agnew further remarked it would be of great interest to have accurate measurements made of some of these horrible monsters, and that Captain McArthur had promised he would endeavour to accomplish it.

Mr. J. SWAN introduced a subject of great practical interest—the economic growth of Angora Wool. In doing so he exhibited a series of fleeces ; the first from a cross between a pure Angora ram and the common goat. This was gradually improved by the same ram until the fourth cross, and the fleece of each cross was brought under the notice of the meeting. Few objects could be of greater interest than these fleeces, the last, especially, affording a long silky staple of almost pure Angora wool, valued at not less than four shillings and sixpence per pound. Other fleeces were also brought forward which exhibited several peculiarities—the results of cross breeding—but in all, the gradual disappearance of the hair of the goat, and the gradual substitution for

it of the beautiful Angora Wool was very striking. These and other points connected with the subject were noticed and lucidly commented upon by the speaker, whose remarks throughout were listened to with marked attention. At the request of several of the members Mr. Swan promised to resume the subject next session, when he hoped to treat it at greater length and with fuller details, as he felt he had done little more than introduce it on the present occasion.

The usual vote of thanks, proposed by Mr. GIBLIN, was seconded by Mr. SHARLAND, who felt specially indebted to Mr. Swan for bringing so important a matter as the production of Angora wool before the Society, and through it, the public. He was very glad indeed that Mr. Swan was still at work on the subject, and he would look forward with the greatest interest for the more detailed information which Mr. Swan had kindly promised to lay before the Society at an early date next session.

The vote having been passed the proceedings terminated.